

What is Claimed is

1. A battery charger characterized by comprising:

a temperature detecting section for detecting a present battery temperature;

a temperature rise value outputting section for obtaining a temperature rise value from the temperature detected by said temperature detecting section;

a current value retrieving section for retrieving a current value with which the temperature rise value outputted from said temperature rise value outputting section is constant; and

a charge control section for charging a battery with the current value retrieved by said current value retrieving section.

2. A battery charger characterized by comprising:

a storage device storing a target temperature value which a battery temperature is intended to reach;

a temperature detecting section for detecting a present battery temperature;

a temperature gradient calculating section for calculating a temperature rise gradient from charging time based on a difference between a battery temperature at the beginning of battery charge and said target temperature value held by said storage device;

a temperature rise value outputting section for obtaining a temperature rise value from the temperature detected by said temperature detecting section;

a current value retrieving section for retrieving a current value with which the temperature rise value outputted from said temperature rise value outputting section becomes said

temperature rise gradient; and

a charge control section for charging the battery with the current value retrieved by said current value retrieving section.

3. A battery charger characterized by comprising:

a storage device storing a target temperature value which a battery is intended to reach;

a temperature detecting section for detecting a present battery temperature;

a temperature rise pattern retrieving section for retrieving a temperature rise pattern for completing battery charge at said target temperature value based on a difference between a battery temperature at the beginning of the battery charge and said target temperature value held by said storage device;

a temperature rise value outputting section for obtaining a temperature rise value from the temperature detected by said temperature detecting section;

a current value retrieving section for retrieving a current value with which the temperature rise value outputted from said temperature rise value outputting section becomes said temperature rise pattern; and

a charge control section for charging the battery with the current value retrieved by said current value retrieving section.

4. A battery charger according to claim 3, characterized in that said temperature rise pattern is such that the temperature rise value is relatively high in a first half of battery charge and is relatively low in a second half of battery charge.

5. A battery charger according to claim 3, characterized

in that said temperature rise pattern is approximated polygonally.

6. A battery charger according to claim 4, characterized in that said temperature rise pattern is approximated polygonally.

7. A battery charger according to claim 3, characterized in that said target temperature value is a value for completing the battery charge at the lowest temperature.

8. A battery charger according to claims 4, characterized in that said target temperature value is a value for completing the battery charge at the lowest temperature.

9. A battery charger according to claim 5, characterized in that said target temperature value is a value for completing the battery charge at the lowest temperature.

10. A battery charging method for making a battery side hold information on a target temperature value, which a battery is intended to reach, corresponding to charging time and charging the battery by means of a battery charger in accordance with the target temperature value, characterized in that

said battery charger comprises:

a storage device storing a temperature rise pattern for completing battery charge at the target temperature value read out from the battery side;

a temperature detecting section for detecting a present battery temperature;

a temperature rise pattern retrieving section for retrieving a temperature rise pattern from said storage device based on a battery temperature at the beginning of the battery

charge and charging time;

a temperature rise value outputting section for obtaining a temperature rise value from the temperature detected by said temperature detecting section;

a current value retrieving section for retrieving a current value with which the temperature rise value outputted from said temperature rise value outputting section becomes said temperature rise pattern; and

a charge control section for charging the battery with the current value retrieved by said current value retrieving section.

11. A battery charging method according to claim 7, characterized in that said target temperature value is a value for completing the battery charge at the lowest temperature.

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